Claims

1. Earplug comprising a plug member for blocking a person's ear canal, said plug member comprising at least one acoustic channel for channeling incoming acoustic energy into said person's ear, said earplug further comprising a detector for detecting an acoustic energy level or for detecting a control signal that is indicative for an acoustic energy level to be received, an acoustic valve positioned in said channel, and a control unit that, in response to said detector, controls said valve so as to attenuate the acoustic energy channeled through said acoustic channel.

2. Earplug according to claim 1, wherein said detector is positioned on the mid-ear side of the acoustic valve.

3. Earplug according to claim 1 or 2, wherein said valve comprises a valve seat and a valve member, wherein the valve member is actuated by the control unit and wherein the valve seat comprises a body of micro-channels.

4. Earplug according to claim 3, wherein the body of microchannels comprises a wiring mesh.

5. Earplug according to any of the preceding claims 3 or 4, wherein the valve member comprises a flexible foil closing said valve seat.

6. Earplug according to any of the claims 3-5, wherein said valve seat and said valve member each comprise an electrode for providing electrostatic attraction.

7. Earplug according to any of the claims 3-5, wherein the valve seat and/or valve member are actuated by a piezo-element.

8. Earplug according to any of the preceding claims, wherein, said valve is maintained at a predetermined attenuating position when said control unit is inactive.

9. Earplug according to any of the preceding claims, wherein said acoustic valve and said detector are comprised in a modular housing that is insertable in the acoustic channel of said plug member.

10. Earplug according to any of the preceding claims, wherein the control signal is an acoustic signal.

11. Earplug according to any of the preceding claims, wherein said detector comprises a microphone.

12. Modular housing to be fitted in an acoustic channel of an ear plug, comprising a detector for detecting an acoustic energy level or for detecting a control signal that is indicative for an acoustic energy level to be received, and an acoustic valve to be positioned in said channel, further comprising a control unit that, in response to said detector, controls said valve so as to attenuate the acoustic energy channeled through the acoustic channel.